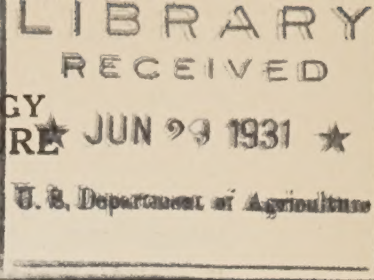


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Number 205

May, 1931

## BEE CULTURE

Jas. I. Hambleton, in Charge

H. B. Kirk, in charge of Apiary Inspection, Pennsylvania Department of Agriculture, Harrisburg, Pa., spent May 11 and 12 at the Bee Culture Laboratory, studying methods used in making laboratory diagnoses of bee diseases.

Charalambos Simopoulos, Minister of Greece, accompanied by Angelo Anninos, Counselor of the Legation, visited the Bee Culture Laboratory on May 25. Mr. Simopoulos expressed great interest in the work of the laboratory. He was anxious to obtain information relative to the bee-keeping industry in the United States to transmit to the beekeepers of his own country, where an attempt is being made to place beekeeping on a modern basis. Mr. Simopoulos later sent two cans of Grecian honey of excellent quality to the laboratory to be included in the collection of foreign honeys. Considerable quantities of this honey are imported into the United States, going almost exclusively to the fancy retail grocery trade.

Dr. Everett Oertel, of the Southern States Bee-Culture Field Laboratory, Baton Rouge, La., took a trip in May through northwestern Florida to make observations on the work of honeybees during the peak of the tupelo blossoming period.

A colony of bees was recently installed in a glass observation hive in the new reptile house at the National Zoological Park, Washington, D. C. Some difficulty was experienced in installing the bees, inasmuch as it was necessary for them to traverse a long tunnel before they would be free to fly. After certain changes had been made to improve the ventilation of the colony, the bees accepted their new quarters and are now reacting quite normally.

With the rapid passing of large forest trees stray swarms of bees are being forced to accept whatever shelter is available, and so are becoming more and more evident in dwellings. The division of Bee Culture Investigations, Somerset, Md., has had an unusual number of telephone requests and personal appeals from people throughout the city asking how to hive swarms that have settled in their yards, or how to remove them from the walls and attics of houses.



The following persons visited the Intermountain States Bee-Culture Laboratory, Laramie, Wyo., during the month: George E. Brimmer, Chairman of the Wyoming-George Washington Bicentennial Commission, Cheyenne, Wyo.; Dr. A. C. Hildreth, Director of the Great Plains Experiment Farm, Cheyenne; L. T. Oldroyd, Commissioner of Agriculture, Cheyenne; R. L. Esmay, Adjutant General of the State of Wyoming, Cheyenne; and Prof. S. H. Dadisman with some 50 students in agricultural education.

During the month E. L. Sechrist and Frank E. Todd, of the Pacific Coast Bee-Culture Field Laboratory, Davis, Calif., visited the Oregon Agricultural College, Corvallis, Oreg., and interviewed Dr. J. T. Jardine, Director of the Oregon Agricultural Experiment Station, and several members of the station staff and of the college faculty in regard to a contemplated beekeeping survey in Oregon.

Reports have been received from Nevada and California, as well as from certain places in the Eastern States, of the abnormal death of adult bees. The trouble is invariably reported as paralysis. No one as yet has discovered the cause of this trouble, which is quite widespread, and it is not possible at present to make a definite diagnosis. The Bee-Culture Laboratory has undertaken certain inoculation experiments with bees suffering from this adult trouble in the hope of discovering its cause.

An unusual number of beekeepers have visited the Bee-Culture Laboratory this month to obtain information relative to the various phases of beekeeping. The general financial conditions of the country apparently have had no effect in diminishing the zeal for beekeeping.

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## TROPICAL, SUBTROPICAL, AND ORNAMENTAL PLANT INSECTS

### A. C. Baker, In Charge

Dr. C. I. Bliss arrived in Washington May 5 for a conference with Bureau officials in regard to the work at the Whittier, Calif., laboratory.

F. H. Benjamin, engaged in research on the Mediterranean fruit fly at Orlando, Fla., was a visitor at the Washington office the last week of May.

Ralph Schopp was appointed Junior Entomologist, effective May 28, and assigned to duty at Sumner, Wash. Mr. Schopp has had experience in the Bureau, having held a temporary position on corn-borer work in Ohio.

In last month's issue we stated that Dwight L. Hubbart, Under Biological Aid, was appointed for duty at Balboa, Canal Zone. This was an error, as Mr. Hubbart was added to the staff of the Whittier Calif., laboratory.



## JAPANESE-BEETLE AND ASIATIC-BEETLE RESEARCH

C. H. Hadley, in Charge

V. I. Safro of the Kay Laboratories, New York City, recently spent a day at the laboratory at Moorestown, N. J., discussing insecticidal problems with the members of the staff.

On May 5 and 6, W. E. Fleming went to Jericho, Long Island, to obtain samples of lead arsenate-treated turf for analysis, and to discuss insecticide work with Harold C. Hallock at the Westbury, Long Island sublaboratory. Mr. Fleming visited the field laboratory at Babylon, Long Island, in company with Mr. Hallock.

On May 7 W. E. Fleming and F. E. Baker visited the Andorra Nurseries at Chestnut Hill, Pa., to investigate the reported injury of Japanese-beetle larvae to the roots of rhododendron and hemlock. It was found that very severe damage was being caused in certain blocks of stock by the larvae of the Japanese and Asiatic beetles, and the nurseryman was advised to treat his soil with lead arsenate.

A conference was held at the Moorestown laboratory on May 9 to consider the recommendations for spraying fruit trees and ornamental stock for protection against the Japanese beetle. This conference was attended by C. H. Hadley, W. E. Fleming, F. W. Metzger, and P. A. van der Meulen, of the Bureau of Entomology; E. G. Rex, of the New Jersey Department of Agriculture; and T. J. Headlee, R. J. Farley, and E. E. Evaul, of the New Jersey Experiment Station.

During the period May 12 to 18 W. E. Fleming and F. E. Baker visited Athens, Pa., Sayre, Pa., Binghamton, N. Y., Kingston, N. Y., Hartford, Conn., Williamantic, Conn., New London, Conn., Providence, R. I., Boston, Mass., Cambridge, Mass., and Springfield, Mass., to study the local conditions and to obtain samples of lead arsenate-treated turf.

On May 21 Dr. Alberto Graf Marin, head of the Servicio Sanitario Vegetal, Santiago, Chile, visited the Moorestown laboratory to observe the equipment and to discuss the work with different members of the staff.

A. S. Pierce of Philadelphia, Pa.; Mr. Fries of the Fries Chemical Company; W. F. Kiefer of Fritsche Bros., Inc.; Dr. W. E. Hoffman of Canton, China; Mr. Kapp of Drexel Institute, Philadelphia; and Dr. Horsfall of the American Cyanamid Co., New York City, visited the laboratory in May.

Members of the staff of the Moorestown laboratory have held conferences during the month with C. W. Stockwell, O. K. Courtney, G. K. Handle, and V. A. Johnson, of the Plant Quarantine and Control Administration, in regard to problems of insect control.



On May 28 E. G. Rex, of the New Jersey Department of Agriculture, visited the laboratory to confer further on the problems of treating turf for control of the Japanese beetle.

On May 28 Messrs. Humphreys and Carver, of the Andorra Nurseries, visited the laboratory to observe the nursery stock growing in soil treated with lead arsenate.

On May 29 T. J. Headlee, State Entomologist of New Jersey, visited the laboratory in connection with nursery problems in control of the Japanese beetle.

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#### DECIDUOUS-FRUIT INSECTS

J. A. Harris, Assistant Entomologist, of the North Carolina State Department of Agriculture, and J. C. Moser, Assistant Entomologist, and H. J. Kile, Inspector, of the Division of Plant Disease Control, University of Tennessee, visited the peach-insect laboratory at Fort Valley, Ga., on May 5. Other visitors to the laboratory during the month included three inspectors from the office of the State Entomologist of Texas; one from the office of the State Entomologist of South Carolina; one from the Alabama Bureau of Plant Industry; and three from the U. S. Bureau of Plant Industry.

On May 6 F. C. Petherbridge, of the School of Agriculture, University of Cambridge, England, visited the Yakima, Wash., field laboratory.

E. J. Newcomer, Senior Entomologist in charge of the Yakima, Wash., field laboratory, has been elected president of the Yakima Valley Federal Business Association.

Prof. W. E. Hoffman, of Lingnan University, Canton, China, visited the oriental peach moth parasite project at Moorestown, N. J., on May 14. He was interested in the nature of the damage by the fruit moth in the United States, and is making a study of its North American parasites.

Dr. Alberto Graf Marin, head of Servicio Sanitario Vegetal, of Santiago, Chile, visited the oriental fruit moth parasite laboratory at Moorestown, N. J., on May 20 to 21. Dr. Marin was particularly interested in the technique of mass rearing of parasites and in the breeding of Ascogaster carpocapsae, a parasite of the peach and codling moths not present in Chile.

J. K. Holloway and H. J. Willard, of the Moorestown, N. J., field laboratory, received on May 26, from the Steamship Augustus at New York, the first consignment of oriental fruit moth parasites to be shipped from Europe this year.



W. T. McAllister has been appointed Field Assistant and assigned to investigations of the oriental fruit moth parasites at Moorestown, N. J.

G. J. Haeussler has recently transferred his laboratory from Antibes to Nice (Alps-Maritimes), France. His new location brings him closer to the main sources of parasites in the orchards of southern France and northwestern Italy.

R. W. Burrell, of the Japanese-beetle project in Australia, reports the finding of oriental fruit moth in moderate numbers at several points in that country, with parasites fairly numerous in the area about Sydney, New South Wales. Four species of parasites have already been recovered by Mr. Burrell, one being Gambrus stokesii a species previously reported from that region.

H. W. Allen of Moorestown, N. J., was in Washington on May 19 for conference with Dr. C. L. Marlatt and S. A. Rohwer.

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#### COTTON INSECTS

F. C. Bishopp, in Charge

G. J. Fleming, manager of the Kassala Cotton Company, Wad Shair, Hassa Heissa, Sudan, was a visitor at the Tallulah, La., field laboratory on May 25. He expressed great interest in the research and progress made in control of cotton insects, and especially in the developments in airplane equipment for applying insecticides to cotton.

G. C. McGinley, pilot, left Tallulah on May 4 by airplane for Bryan, Tex., to conduct flights for collection of insects in the upper air in connection with migration studies. He returned to Tallulah on May 18.

Gwynn L. Garrison returned to Tallulah May 2 after completing work on the *Thurberia* weevil at Tucson, Ariz., and on the pink bollworm at Presidio, Tex. He was transferred to these projects last winter.

H. C. Young, of the Tucson, Ariz., field station, was at Tallulah from May 8 to 14 conferring on plans for cooperative control work on the boll weevil in Oklahoma.

R. W. Moreland left Tallulah May 21 for Bryan, Tex., where he will remain during the cotton-growing season, conducting tests for control of the cotton bollworm.

A. C. Christopher and R. P. Patty were appointed temporary Field Assistants, effective on May 18 and 20, respectively.



## FOREST INSECTS

F. C. Craighead, in Charge

On May 22 Dr. F. C. Craighead visited Rainelle, W. Va., in company with Dr. Carl Hartley, of the Bureau of Plant Industry, and T. W. Skuce, Extension Forester in West Virginia, to investigate the extensive dying of white oak throughout that section of the country. It is believed that the death of these trees is the result of the freeze of May 26 and 27, 1925, which occurred after the foliage had formed.

On May 1 B. J. Huckenpahler, Field Assistant, reported for duty at Asheville, N. C., where he will assist R. A. St. George in studies of the southern pine beetle. Mr. Huckenpahler received his B. S. degree from the University of Minnesota in March.

Control of the mountain pine beetle in the summer-home district around Echo Lake on the Eldorado National Forest, Calif., was started early in May. This project involves the clean-up of all infested trees on the special-use lots leased by private individuals, and of the surrounding national forest area. G. R. Struble will remain on the area during the period of control work to mark the trees that are to be treated and to direct the methods used. Experiments to determine the effectiveness of burning infested trees standing, with the aid of fuel oil, will be tried out on this area.

On May 15 and 16 J. M. Miller, Entomologist in charge of the western bark beetle laboratory at Palo Alto, Calif., made an investigation of conditions in the yellow pine type of the Sierra National Forest, where some special sample plots were established by the Bureau of Entomology in 1925. It was found that the western pine beetle, which had been in an endemic status for the past four years, suddenly increased during the season of 1930, and that large groups of trees within these plots have been attacked. As the winter of 1930-31 has been one of the driest on record, these plots will afford an excellent opportunity to study the effect of moisture deficiency on an increasing infestation of the western pine beetle.

The regional forest insect survey crew started its season's work on the Modoc National Forest in California, May 12. This crew consists of Dr. K. A. Salman, in charge, with Field Assistants Fred Bacon, E. F. Wohletz, and F. A. Meckel. Plans have been made to establish permanent sample plots on the Modoc, Lassen, and Sierra National Forests during the coming season. In addition to these survey studies some time will be given to an experiment on the Devil's Garden area of the Modoc to determine the feasibility of attempting the extermination of the western pine beetle.

Nelson R. Trafton, of the Maine Department of Agriculture, was appointed Under Biological Aid on May 1 and will collaborate with the gipsy moth laboratory.



J. C. Evenden, of the Coeur d'Alene, Idaho, field laboratory, spent most of the month of April in the field in connection with the bark-beetle control projects being conducted in Forest Service Region 1. The week of April 6 to 12 was spent on the Madison, Mont., project in conducting a training camp for chief spotters, crew foremen, and camp managers, for the purpose of giving instruction in the proper location, marking, and treatment of infested trees. This project is directed against an outbreak of the mountain pine beetle in lodgepole pine. The infestation threatens to spread through the Madison National Forest into the scenic forest of the Yellowstone.

From April 15 to 22 Mr. Evenden accompanied E. E. Carter and Elers Koch, of the Forest Service, on an inspection of the control work being conducted on the Kootenai and Coeur d'Alene National Forests in Idaho. These two projects are directed against an outbreak of the mountain pine beetle in valuable commercial white pine forests.

Mr. Evenden spent the latter part of April with Messrs. Carter and Koch on the Madison project, where operation plans were discussed and an inspection of the work conducted. Although handicapped by severe snow conditions all bark beetle control projects have been pushed as rapidly as possible and at this time are operating at nearly maximum capacity.

A. L. Gibson, Assistant Entomologist at the Coeur d'Alene, Idaho, field laboratory, left early in April for the Madison bark beetle control project, where he has been assisting the forest officers in charge with the entomological features of the work.

T. T. Terrell, Assistant Scientific Aid, assisted the forest officers in charge of the Coeur d'Alene bark beetle control project in conducting a training camp for chief spotters, crew foremen, and camp managers during the week of April 13 to 19. Mr. Terrell spent the last ten days of April in assisting the officers of the Tongue River Indian Reservation to institute a small control project against a potential outbreak of the Black Hills beetle in yellow pine. Mr. Terrell expects to leave the Tongue River Reservation early in May to assist officers of the Yellowstone Park in instituting a control project against an outbreak of the mountain pine beetle in the lodgepole pine forests in the southwest corner of the Park.

H. J. Rust, Senior Scientific Aid, has spent considerable time in the field around Coeur d'Alene, studying the biology of the Oregon pine-bark beetle, Ips oregoni, and associated species of insects. The purpose of this study is to learn more of the factors contributing to the destructive sporadic outbreaks of this insect.

B. H. Wilford, temporary employee, assigned to the Coeur d'Alene laboratory, and who will have charge of the experimental spraying against the spruce budworm in Cody Canyon, has completed plans for the season and left for the field on May 5. Mr. Wilford will be assisted on this project by Elmer Miller, a temporary employee who was employed on this project last season.



L. G. Baumhofer, Assistant Entomologist, who for the past three years has been assigned to the study of the injury to the pine plantations at Halsey, Nebr., by pine tip moths, arrived at the Coeur d'Alene, Idaho, laboratory on April 30. Mr. Baumhofer assisted by F. B. Foley and L. J. Farmer, temporary employees, will spend a few weeks on the bark-beetle control projects of Region 4, where he will make detailed examinations of the actual results secured from the burning-standing method of control. This method consists in spraying an inflammable oil upon the boles of the trees, and then burning them. It is only applicable for the treatment of lodgepole pine trees infested by the mountain pine beetle. Mr. Baumhofer expects to return to Halsey about June 16.

C. W. Collins, in charge of the gipsy moth laboratory, spoke before the Boston Federal Business Association on May 5. His talk dealt with the work carried on by the laboratory and was illustrated with lantern slides. Mr. Collins spent May 11 and 12 in Washington, consulting with Dr. F. C. Craighead concerning the activities of the laboratory.

Dr. J. R. Hobbs, of the Harvard University Medical School, was given a temporary appointment as Field Assistant at the gipsy moth laboratory on May 16. Dr. Hobbs will continue investigations on the wilt disease and bacterial diseases of the gipsy moth which he has conducted during the past two summers under temporary appointments.

The following men were given appointments as Field Assistants at the gipsy moth laboratory during the month: W. N. Sullivan, jr., a graduate of the Massachusetts Agricultural College; C. J. Poliks, a graduate of the Connecticut Agricultural College; and D. W. Farquhar, a graduate student at Harvard University.

Prof. J. A. Manter, of the Connecticut Agricultural College, with six of his entomological students, visited the gipsy moth laboratory on May 13. Other visitors during the month were: Prof. W. E. Hoffmann and H. T. Chen, of Lingnan University, Canton, China; A. M. Vance, of the Arlington, Mass., European corn borer laboratory; and R. A. Sheals and H. J. Conkle, of the Plant Quarantine and Control Administration, Washington, D. C.

Under the direction of C. E. Hood, of the gipsy moth laboratory, experiments for the control of Heterocampa guttivitta Walker were begun in May in western Massachusetts. Serious outbreaks of this lepidopterous pest have occurred in New England at 11-year intervals in areas where sugar maple and beech predominate, and the species began to be noticeably abundant again in 1930.

A small colony of a eulophid, which is apparently a species of Chrysocharis, was liberated in Strong, Me., on May 27. This hymenopterous parasite issued from material of Phyllotoma nemorata Fall. received at the gipsy-moth laboratory from Austria last winter. Phyllotoma nemorata is a leaf-mining sawfly on birch. It appeared in epidemic form in Maine in 1927 and has since been noted in New Hampshire, Vermont, and Massachusetts.



## CEREAL AND FORAGE INSECTS

W. H. Larrimer, in Charge

C. M. Packard, in charge of the West Lafayette, Ind., field laboratory, made a trip to Carlisle, Pa., and to Washington, D. C., on May 26 and 29 to discuss investigations of the Hessian fly.

H. A. Jaynes has made what is perhaps the first airplane shipment of beneficial insects from South America to North America. On May 8 he sent by airplane from Trujillo, Peru, 1,075 adults of Ipobracon rimac, a hymenopterous parasite of the sugarcane moth borer. The shipment arrived at Miami, Fla., on May 11, and, in cooperation with E. R. Sasscer, Entomologist in Charge of Foreign Plant quarantines, and J. V. Gist, Collaborator with the Plant Quarantine and Control Administration of the State Plant Board of Florida, was then sent by express to New Orleans, arriving there on May 13. Three hundred and twenty-seven of the wasps were alive and in good condition. The total trip was less than 6 days, whereas by ship and train it would have required about 22 days. The percentage of survival was better by airplane, although the parasites were not kept at low temperatures, as they are when sent in the ordinary way.

Dr. F. W. Poos, Entomologist in charge of the field laboratory at Arlington Farm, Va., and M. V. Anthony, Field Assistant, of that laboratory, made a trip to Columbus, Ohio, on May 26. Mr. Anthony is being temporarily stationed at Columbus to carry on work on the control of alfalfa yellows. He will work in cooperation with Dr. C. J. Willard, of the department of farm crops of the Columbus College of Agriculture.

Dr. W. H. Larrimer spent the period May 18 to 23 at the Toledo, Ohio, and Monroe, Mich., field laboratories, discussing corn-borer control with specialists in charge of that work.

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## TAXONOMY

Harold Morrison, in Charge

On May 13 Dr. John R. Johnson, of the United Fruit Company, located at Boston, Mass., came to Washington to discuss entomological problems with specialists here.

Dr. W. T. M. Forbes, of the entomology department, Cornell University, Ithaca, N. Y., spent May 19 to 25 studying the National collections of microlepidoptera. He was especially interested in the species from Porto Rico.

Dr. Donald De Leon, of the Bureau's western bark-beetle laboratory, Coeur d'Alene, Idaho, recently called at the Taxonomic Unit to discuss the hymenopterous parasites of bark beetles.



On May 20 A. J. Kistler, of New York City, spent some time in the section of Coleoptera examining certain Carabidae and Cicindelidae in the National collection.

Francisco Sein, jr., of the Insular Experiment Station, Rio Piedras, P. R., came to Washington May 26 and will spend several days studying the National collection of citrus fruit flies and consulting the Bureau's specialists.

Foster H. Benjamin, of the Plant Quarantine and Control Administration's Mediterranean fruit fly project, located at Orlando, Fla., was in the Taxonomic Unit May 29 to June 1 to discuss various problems of identification of fruit flies.

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### INSECTS AFFECTING MAN AND ANIMALS

F. C. Bishopp, in Charge

The following temporary employees reported for duty during the month: M. F. Canova, Field Assistant, at Portland, Oreg., to assist in mosquito investigations; Adrian C. Fox, Field Assistant, at Fargo, N. Dak., to assist in cattle grub investigations; Roy Melvin, Field Assistant, at Galesburg, Ill., to assist in cattle grub investigations; John B. Hull, Field Assistant at Charleston, S. C., to assist in sand fly investigations that are being conducted at that point.

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### TRUCK-CROP INSECTS

W. H. White, Entomologist

C. W. Getzendaner, Junior Entomologist, who has been taking post-graduate work in entomology at Iowa State College, Ames, Iowa, returned to his duties at Puyallup, Wash., May 1, 1931.

C. H. Popenoe, of the Bureau of Entomology, together with Frederick E. Dunham and C. A. Carrello, of the Motion Picture Laboratory, left Washington May 4, for Louisiana, where, in company with K. L. Cockerham, Entomologist in charge of the sweetpotato weevil laboratory at Biloxi, Miss., and officials of the Louisiana State Department of Agriculture, parts of a motion picture dealing with the cultural methods required for the control of the sweetpotato weevil were obtained. Upon the completion of this film in the fall a two-reel educational motion picture will be available on this subject for the use of agricultural workers and growers.



D. E. Fink, Entomologist in charge of the field laboratory at Philadelphia, Pa., visited Washington, May 26 to 27 to discuss further plans in connection with the transfer of his laboratory to Takoma Park, Md.

R. A. Fisher has been appointed Field Assistant at the Parma, Idaho, sublaboratory and C. W. Schaefer, Field Assistant at the Madison, Wis., field laboratory.

J. P. Vinzant has received a probational appointment as Assistant Scientific Aid in Entomology at the Sanford, Fla., laboratory to succeed E. C. Tatman, who has been transferred to the Bureau of Plant Industry and is located at Arlington Farm, Va.



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Ina L. Hawes, Acting in Charge

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